

## CLAIMS

We claim:

- 1 1. A method for reconstructing an integrated circuit package comprising:
  - 2 attaching a die to exposed wire bond pads of a lead frame so that the die is
  - 3 electrically connected to the lead frame; and
  - 4 encapsulating the die and the wire bond pads in an encapsulant; and
  - 5 reshaping an upper surface of the encapsulant where at least a portion of the
  - 6 encapsulant reshaping is performed by a lapping process.
  
- 1 2. A method according to claim 1, wherein lapping is performed by an  
2 abrasive or ablative lapping process.
  
- 1 3. A method according to claim 1, wherein lapping is performed by a  
2 mechanical, chemical, or electromagnetic lapping process.
  
- 1 4. A method according to claim 1, wherein encapsulating the die and the wire  
2 bond pads results in the encapsulant having a convex or concave an upper surface,  
3 and reshaping the encapsulant results in the encapsulant having a planar an upper  
4 surface.
  
- 1 5. A method according to claim 1, further comprising marking the reshaped  
2 upper surface of the encapsulant.
  
- 1 6. A method according to claim 1, wherein the reshaped upper surface of the  
2 encapsulant is sufficiently flat to permit labeling by printing, photolithographic or  
3 mechanical marking techniques to simulate a production transfer molded  
4 encapsulated IC package, the method further comprising marking the reshaped  
5 upper surface of the encapsulant.

1       7.     A method according to claim 1, wherein lapping is performed using a laser  
2     or another source of electromagnetic radiation.

1       8.     A method according to claim 1, wherein lapping is performed using a  
2     planar abrasive surface.

1       9.     A method according to claim 1, wherein lapping is performed using a  
2     planar abrasive surface attached to a wheel or belt.

1       10.    A method according to claim 1, wherein lapping is performed using a  
2     planar abrasive surface sufficiently large to permit more than one package to be  
3     lapped at the same time.

1       11.    A method according to claim 1, wherein lapping is performed by chemical  
2     etching.

1       12.    A method according to claim 1, wherein lapping is performed using a gas-  
2     jet or liquid-jet containing a particulate material.

1       13.    A method according to claim 1, wherein lapping is performed via a  
2     mechanical grind.

1       14.    A method according to claim 1, wherein lapping is performed using a  
2     combination of mechanical and chemical ablation.

1       15.    A method according to claim 1, wherein lapping is performed using a  
2     combination of mechanical and electromagnetic ablation.

1       16.    A method according to claim 1, wherein lapping is performed using laser  
2     ablation.

1    17.    A method according to claim 1, wherein lapping is performed using a  
2    combination of electromagnetic and chemical ablation.

1    18.    A method according to claim 1, wherein lapping is performed by impinging  
2    an ultra-fine particulate using a high pressure gas-jet against the material to be  
3    lapped.

1    19.    A method according to claim 1, wherein lapping is performed by impinging  
2    an ultra-fine particulate under high pressure against the material to be lapped.

1    20.    A method according to claim 1, wherein lapping is performed by delivering  
2    a pulsating liquid-jet under high pressure against the material to be lapped.

1    21.    A method according to claim 1, wherein lapping is performed by plasma  
2    etching.

1    22.    A method according to claim 1, wherein lapping is performed by a  
2    pressurized liquid against the material to be lapped.